



UNITED STATES DEPARTMENT OF COMMERCE
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Part 1 #22

08/794-282	01/24/97	KHANDEES	1
SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

DAVID LARWOOD
INTELLECTUAL PROPERTY
FORMFACTOR, INC.
5666 LA RIBERA ST.
LIVERMORE CA 94550

GM21/0729

ARBEY EXAMINER	
ART UNIT	
PAPER NUMBER	
07/13/99	

DATE MAILED:

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents and Trademarks

~~Responsive to Communication Filed~~

The enclosed is a correct copy of ~~a reference relating to~~ the last Office action. The correction is indicated below.

THE PERIOD FOR RESPONSE OF 3 months MONTHS SET IN SAID OFFICE ACTION IS
RESTARTED TO BEGIN WITH THE DATE OF THIS LETTER.

☐ Part 1 - Correct ~~Reference Citation~~ *Address*

LEEYOUNG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

by

Lee Young

Examiner

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SEP 25 2003
TECHNOLOGY CENTER R3700

☐ Part 2 - Correct Reference Furnished:

by

Reference Order Center

enc.

8/794,202



Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 30 Days MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on January 24, 1997
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-53 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☐ Claim(s) _____ is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☒ Claim(s) 1-53 are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14, drawn to method of shaping an elongate element, classified in class 29, subclass 843.
 - II. Claims 15-20, drawn to wirebonding apparatus, classified in class 228, subclass 6.2.
 - III. Claims 21-27, drawn to method of making a composite interconnection, classified in class 29, subclass 843.
 - IV. Claims 28-32, drawn to method of mounting an interconnection element to a terminal of an electronic component, classified in class 29, subclass 843.
 - V. Claim 33, drawn to method of fabricating interconnection elements, classified in class 29, subclass 843.
 - VI. Claims 34-38, drawn to method of making an interconnection element, classified in class 29, subclass 527.4.
 - VII. Claims 39-40, drawn to method of mounting an interconnection element to a terminal of an electric component, classified in class 29, subclass 843.
 - VIII. Claims 41-45, drawn to method of performing wirebonding, classified in class 29, subclass 843.

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IX. Claims 46-49, drawn to method of severing an elongate element, classified in class 219, subclass 11.

X. Claims 50-53, drawn to 50-53, classified in class 72, subclass 100.

2. The inventions are distinct, each from the other because of the following reasons Group I invention is materially and patentably distinct from Groups II-X inasmuch as the Invention I can be practiced by the hand and also there is no mention of coating or overcoating any of the elongate element and also no mention of coating or overcoating the elongate element with a relatively hard material or a material of higher yield strength and also no mention of after stopping the capillary at a distance, urging a shaping tool against the wire stem and also no mention of causing an electrical discharge to occur in order to sever the elongate element or during the "paying out of the elongate element" urging to shaping tool against the payed out portion;

Invention II is patentably distinct from Inventions III-X inasmuch as the apparatus in Invention II

3. is capable of moving in two opposite directions whereas in the other Inventions this is not necessary or is irrelevant; Invention III is patentably distinct from Inventions IV-X inasmuch as Invention III inasmuch as there is no need to have a shaping tool to impart a springable shape to a core element in Inventions IV-X as there is in Invention III; Invention IV is patentably distinct from Inventions V-X inasmuch as Invention IV inasmuch as there is no need to overcoat a core element with a coating of sufficient yield strength and thickness so as to securely mount an interconnection element to a terminal in Inventions V-X as there is in Invention IV; Invention V is

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patentably distinct from inventions VI-X inasmuch as there is no need to mount a plurality of core elements to a surface of a sacrificial substrate in Inventions VI-X as there is in Invention V; Invention VI is patentably distinct from Inventions VII-X inasmuch as there is no need to overcoat a core element with a shell of a relatively hard material in Inventions VII-X as there is in Invention VI; Invention VII is patentably distinct from Inventions VIII-X inasmuch as there is no need to attach an elongate element of a first material to a terminal of an electronic component and overcoat the element with a material having a higher yield strength than the elongate element in Inventions VIII-X as there is in Invention VII; Invention VIII is patentably distinct from Inventions IX-X inasmuch as there is no need to urge a shaping tool against a wire stem after stopping the capillary in Inventions IX-X as there is in Invention VIII; Invention IX is patentably distinct from Invention X inasmuch as Invention IX there is no need to cause an electrical discharge between an electrode and the elongate element as there is in Invention IX.

a. The searches for the 10 patentably distinct Inventions are divergent and would be quite burdensome to the Office.

b. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).


Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Finally Applicants are requested to provide all claims of all patents or patent applications which have been allowed inasmuch as it is believed that the claims in the instant Application are substantially similar if not the same to claims in other Patents (by Applicants or their Assignee) or allowed patent Applications.

Any inquiry concerning this communication should be directed to C.J. Arbes, Esquire at telephone number (703) 308-1857.


Carl J. Arbes
Primary Examiner